

**HILLSIDE INDUSTRIAL PARK
PRELIMINARY ENVIRONMENTAL LIABILITY SITE ASSESSMENT**

Prepared for:

Sunshine Coast Regional District
Box 800
Sechelt, British Columbia
V0N 3A0

Prepared by:

Norecol Environmental Management Ltd.
Suite 700, 1090 West Pender Street
Vancouver, British Columbia
V6E 2N7

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1.0

SCOPE OF WORK

The scope of this study was limited to the following tasks:

- A review of available information from various sources with respect to past and present uses of the property and surrounding area;
- A visual reconnaissance of the subject property; and
- Preparation of this written summary.

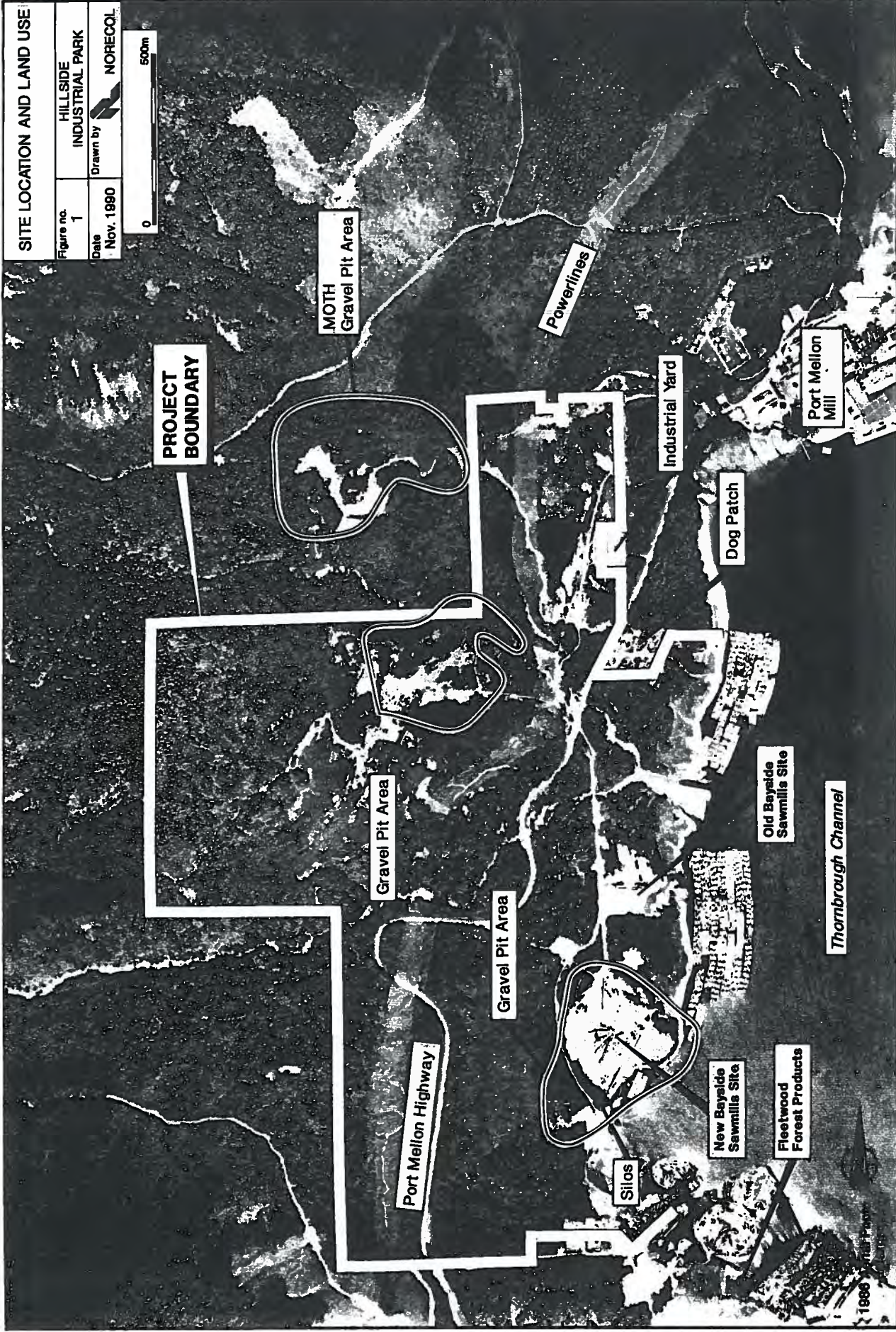
2.0

SITE DESCRIPTION

The project area is located on the west side of Howe Sound, on the east facing hillside south of Port Mellon. The project area boundaries are shown in Figure 1. The project area comprises District Lots 1482, 539, 1645, most of 1618, and the east part of 1365.

The terrain is relatively steep, with elevation ranging from sea level to 275 m. Two major drainages, Dakota and McNair creeks, join within the study area and empty into Howe Sound near the center of the project area.

The site is underlain by deep deposits of till, ablation till, glacio-fluvial materials, and recent fluvial deposits. Significant disturbance to soils has resulted from previous land use such as logging and gravel extraction. Vegetation cover consists of regenerating stands of alder on the gravel workings, brush under the powerline right of way, deciduous cover along the creeks and moist lowland, and older stands of mixed forest on better drained sites. A more complete description of environmental conditions is found in the report "Environmental Impact Assessment -Hillside Industrial Park", prepared by Norecol Environmental Consultants Ltd. for the Sunshine Coast Regional District in February 1990.



SITE LOCATION AND LAND USE		
Figure no.	HILLSIDE INDUSTRIAL PARK	
Date	Nov. 1990	Drawn by NORECOL

3.0 FINDINGS

Information regarding the history of land use on the subject property and adjacent area was assembled through review of historical aerial photographs, the Norecol environmental assessment report, property titles and information provided by the Sunshine Coast Regional District, Bayside Sawmills Ltd., and the Ministry of Crown Lands.

3.1 Land Ownership

The 164 hectare (405 acre) site is presently owned by the Crown in the Right of the Province of British Columbia. The Crown acquired the site from CBR Cement Canada Ltd. in December 1988. The latter (and its predecessors) purchased the property from Hillside Sand and Gravel Company Ltd. in 1961. The latter had acquired the various parts of the property from private individuals and lumber companies from the 1930's to the 1940's.

Bayside Sawmills Ltd. presently has a Licence of Occupation with Crown Lands on their new sawmill site, with a right to purchase. Their old sawmill site is also under a Licence of Occupation. Bayside also has a short term agreement with Crown Lands for storage of equipment adjacent to the north fence line of their new sawmill site.

Crown Lands granted a short term Licence of Occupation to the pipeline construction contractor for storage of pipe in the area to the north of Baysides' new mill. This covered the period July 1 to September 30 (approximate).

3.2 Site Use History

The project area was used by several lumber companies for timber harvesting in the early 1900's. By the 1940's and 1950's, gravel extraction became the major activity. Hillside Sand and Gravel Company Ltd. was the major operation, followed by CBR Cement Co.

Ltd. and Construction Aggregates. The extent of gravel pits is shown on Figure 1. Gravel extraction was active until the late 1980's, when most of the equipment was removed.

In 1986, Bayside Sawmills Ltd. established a sawmill at a location several hundred metres south of the mouth of Dakota and McNair creeks (Figure 1). This operated up to December 1989, when Bayside moved to their new mill site further to the south, on the site of the previous gravel yard.

Construction of the new Vancouver Island Natural Gas Pipeline passed through the project area in the summer of 1990. Construction was completed by late September 1990. The contractor operated a pipe storage yard in the "boneyard" to the north of Bayside's new mill from July to September 1990.

According to the Ministry of Crown Lands, Howe Sound Pulp and Paper constructed an upgraded road in 1989, heading north from the new Bayside mill site and crossing the highway. This provided for off-road trucks to access gravel above the Highway, and allowed hauling along private roads to the Port Mellon mill.

3.3

Adjacent Land Use

The Howe Sound Pulp and Paper Mill is located along tidewater 0.5 km north of the project area. Industrial activity associated with the pulp mill has expanded onto lands adjoining the proposed Hillside Industrial Park area.

A small community ("Dogpatch") is located immediately adjacent to the project area, just north of the confluence of Dakota and McNair creeks. Fleetwood Forest Products operate a sawmill and booming ground at tidewater immediately adjacent to the south edge of the project area. Log booming occurs along much of the foreshore in this area.

The Ministry of Transportation and Highways operate a gravel pit to the north of McNair Creek, uphill of the northern edge of the project area.

Site Reconnaissance

The project area was visited by a Technical Specialist from Norecol on September 26, 1990. The visit consisted of a visual inspection of the property, concentrating on the previous gravel extraction areas, the old Bayside sawmill site, the new Bayside mill site, and access roads through the property.

Old Bayside Sawmill Site

The old Bayside Sawmill site consists of three wooden structures housing the mill equipment, an open shed used for mechanical repairs, an old truck used for grease/oil storage, a large pile of wood chips (from the new mill), piles of woodwaste, and piles of logs and lumber. At the time of the site visit, wood chips from the new Bayside mill were being dumped adjacent to the north side of the old mill buildings. Two abandoned fuel tanks were laying beside the main access road near the old mill site: one was an empty 500 gallon tank and another a 250/300 gallon furnace oil/diesel tank which was 1/3 full and leaking. The latter tank had stained a small area of the road bank. A small portable fuel tank (approximately 200 gallons) was laying at the roadside at the entrance to the old mill site and was partly full. A small patch of gravel beneath the tank was stained.

Several piles of old pipe fittings, equipment parts and lumber were located in the old mill site. Salvage of equipment was underway by Bayside Sawmills and there were numerous wooden boxes containing salvaged parts, equipment and lumber.

Two sets of pole mounted transformers (3 per set) were located adjacent to the mill buildings. The area underneath the transformers and all around the buildings was covered with wood waste.

The mechanics shed and adjacent parts of the yard are still in use. Several small areas of oil and grease staining were found near the mechanics shed area of the yard. As well,

stains were evident adjacent to an old truck, which is presently used for storing oil and grease supplies near the mechanics shed.

A small area south of the mechanics shed was used for old equipment and parts storage including 8 to 10 old batteries. The old mill site has 60 to 80 empty 20 litre pails (for lubricant and grease) stored in various locations. One small pail of waste oil (20 litre) was stored near the mechanics shed.

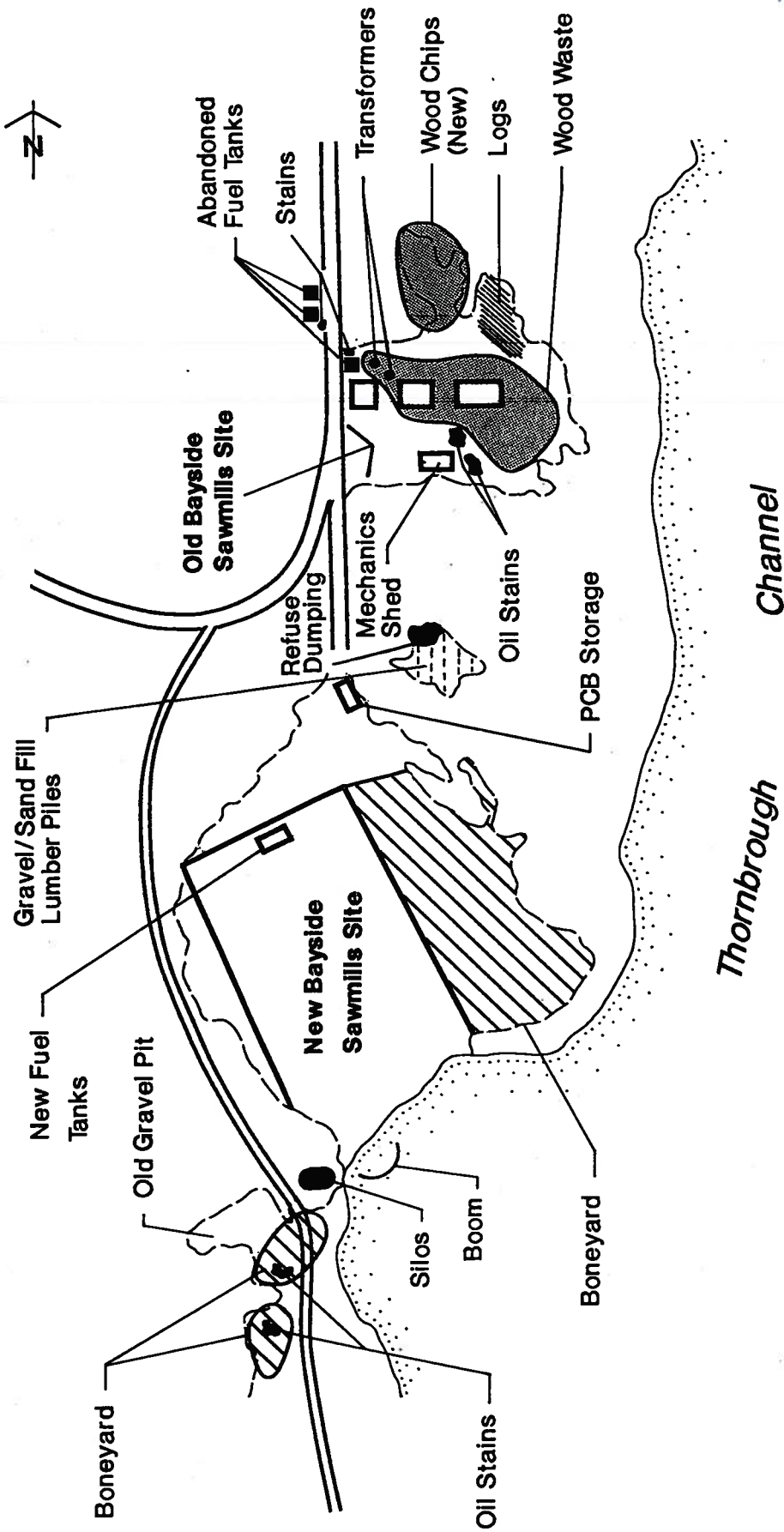
New Bayside Sawmill Site/Boneyard

The new Bayside Mill site was completed in December 1989. The site is fenced and includes two above ground fuel tanks over a concrete pad. The area adjacent to the north edge of the new site is used by Bayside Sawmills as a storage yard for unused and salvaged mill equipment (Figure 2). Materials stored included one 45 gallon drum of antifreeze. There was also an old boiler with remnants of insulation that appeared to contain asbestos.

At the time of inspection, there were also a tanker truck and shovel unit parked near tidewater, both belonging to Majestic Construction. Several small pieces of equipment were stored at the east edge of the boneyard, including a truck, trailer, tractor and a 45 gallon drum of diesel fuel.

South Boneyard

The south edge of the subject property adjacent to the waterfront is an old gravel pit. A corner of this pit area has several pieces of abandoned heavy duty equipment, a bulldozer, and several large, empty fuel tanks. A small oil stain (5 m²) was evident on the gravel surface.



LEGEND

Outline to Clearings



HILLSIDE SITE LAYOUT

Figure no.
2

SUNSHINE COAST
REGIONAL DISTRICT

Date
Nov. 1990

Drawn by
NORECOL

N.T.S.

The roadside to the south of this pit also has several pieces of abandoned heavy equipment, two automotive batteries, and two discarded fuel tanks, both of which had leaked and stained the gravel around the tanks. The surface stains were approximately 20 m² and 12 m² adjacent to the road.

Ten concrete silos previously used for storage of sand and gravel are located at tidewater, between the "south" boneyard area and the new Bayside Sawmills site. Sand and crushed gravel were still evident in and around the silos.

PCB Storage Site

A PCB storage site is located adjacent to the road near the entrance to the new Bayside Sawmills site (Figure 2). This consists of a wooden shed with a rear wall and open front and sides. A 2 metre chain fence surrounds the shed and a gate is padlocked, and signed as a PCB storage site.

The shed has a wooden floor. Approximately 2/3 of the shed is used for storage of containers with PCB material. Two, green steel Enviropac Containers contain PCB material, which according to a Bayside Sawmills representative and the Ministry of Environment, are owned by Construction Aggregates. Two yellow plastic Enviropac Generation II drums contain 11 capacitors which are owned by Continental Forest Products. All four containers are on wooden skids and are padlocked and properly signed.

Two bags of absorbent and clean-up material are also located in the shed. There was no visible evidence of leakage or spills on the soil/gravel inside the fence. According to the Ministry of Environment, the PCB material is to be moved by Construction Aggregates to an approved storage facility in the near future.

Fill Area

A small clearing located between the old and new Bayside Sawmills sites (Figure 2) has sand and gravel fill. Several piles of lumber lie on this fill and the north edge has a

considerable amount of refuse. This area has been used for unauthorized dumping, as most of the material is household rubbish. Total rubbish amounts to approximately two dump truck loads.

Other Areas

Most of the access roads and accessible portions of the project area were visually inspected by vehicle and on foot. Several small, isolated patches of oil staining were noted along roads. A small amount of refuse was evident, however, large scale waste dumping was not apparent.

4.0

POTENTIAL ENVIRONMENTAL LIABILITIES

Overall, the site has a moderate potential for the presence of environmental contamination from the old lumber mill operation and previous gravel extraction operations.

Site inspection revealed several locations of surface contamination from petroleum products at the old Bayside mill site, including the location of several abandoned fuel tanks. Two fuel tanks were partially full and indicated leakage. Several large piles of wood waste occupy the old sawmill site and will require disposal or landfilling. A potential exists for spills or leaks of lubricating oils, hydraulic fluids, fuels, and possibly PCP's (anti-sapstains) around the mill yard.

Similarly, fuel storage tanks and drums of oil, hydraulic fluids and antifreeze at the gravel yard may have resulted in leaks or spills that cannot be readily identified by visual inspection only, especially as much of the former gravel yard site at tidewater is now the site of the new Bayside sawmill. The old equipment from the gravel operations stored at the south end of the property, has resulted in several small, localized petroleum product stains.

Some limited landfilling at the north end of the site appears to have occurred (Parcel 8 area) on previous settling ponds for the gravel extraction. This fill material may pose a

risk. There has also been some refuse disposal on site, which will have to be cleaned up. This would require 2 to 3 truck loads of material to be removed to an approved land fill.

The temporary PCB storage facility on site represents a limited risk. Storage appears to conform to temporary storage standards though this is not a Ministry of Environment permitted site. The Ministry of Environment has inspected the site and Environment Canada is also aware of the site. The PCB's will require removal to an authorized disposal facility or a longer term storage facility. It is our understanding that Construction Aggregates will be undertaking this in the near future.

The boneyards adjacent to the new Bayside mill will require removal of equipment. It is our understanding from the Ministry of Crown Lands that this will be undertaken by Bayside Sawmills and Fleetwood Forest Products.

5.0

CONCLUSIONS AND RECOMMENDATIONS

From the available information, it appears that visible contamination is localized and near surface only. Norecol recommends that a limited supplemental, or Phase 2, environmental assessment be undertaken to identify the nature and extent of contamination on the project area.

The Phase 2 program should include digging test pits with a back-hoe and sampling of soil/fill material and, if possible, groundwater near surface. Sampling sites should include:

- the old Bayside Sawmill's site;
- the boneyard adjacent to the new Bayside Sawmill's site;
- around the PCB storage shed;
- the filled site between the old and new Bayside Sawmill's sites;
- fill material at the old settling ponds (Parcel 8);
- the gravel workings above the highway; and
- selected location along access roads.

Representative samples should be submitted for analysis for metals, PCB's, PCP's, Oil and Grease and other selected organic compounds.

There was no obvious indication of large scale industrial waste disposal or landfilling on site, though confirmation of this in accessible areas is also recommended in conjunction with the Phase 2 work.

6.0

STANDARD LIMITATIONS

This environmental liability assessment report is for the exclusive use of Sunshine Coast Regional District and their representatives. The purpose of this report is to provide the Sunshine Coast Regional District with an assessment of the potential for the presence of chemical contamination or special wastes which could require removal or special treatment before the site can be used for other purposes. This report is neither an endorsement nor a condemnation of the subject property.

The findings and conclusions documented in this report have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by environmental professionals currently practising under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated August 17, 1990. No warranty, expressed or implied, is made.

The findings presented in this report are based upon the condition of the site during a single site visit by Norecol Environmental Management Ltd. personnel. A potential remains for the presence of unknown, unidentified, or unforeseen surface or subsurface contamination. Further evidence against such potential site contamination would require appropriate exploration and testing.

If new information is developed in future work (which may include excavations, borings, or other studies), Norecol should be retained to reevaluate the conclusions of this report, and to provide amendments as required.